UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,363	04/25/2001	Ahmad Ansari	7780/13 (T00341)	6562

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Brinks Hofer Golson & Lione
P O Box 10395
Chicago, IL 60610

EXAMINER
RAMAN, USHA

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 March 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1 and 3-24</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1 and 3-24</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-4, 6-13, 15-17, 21-24 are rejected under 35 U.S.C. 102(e) as being

anticipated by Hassan et al. (US Pat. 5,940,117) in view of Gonzales et al. (US Pat.

5,414,469) and further in view of Coddington et al. (US Pat. 5,410,343).

In regards to claims 1, 11 and 21, Hassan discloses a method of downloading

image to a subscriber terminal using multi-resolution scheme, comprising the steps

of:

Decomposing an image into a plurality of image quality portions, a low quality

image portion (base image, containing the coarsest resolution) of the plurality of

image resolutions comprising a complete copy of the image lower than at least one

of the plurality of image quality portions (lowest resolution of the image). See

abstract, column 1, lines 58-67.

Downloading a complete copy of the low quality video portion to the

subscriber terminal (image display unit) for storage locally at the subscriber terminal.

See column 2, lines 1-9.

Receiving from the subscriber terminal a selection request (image data

request) for a higher quality of the corresponding image content (column 2, lines 4-6)

after downloading the complete copy of the low image portion (i.e. base image, see

column 2, lines 1-2) ; and

Downloading at least one of the plurality of video quality portions having a

video quality higher than the low quality video portion to the subscriber in response

to the selection request (see column 2, lines 5-16).

Hassan only discloses the multi-resolution decomposing and recomposing

scheme for image data in order to save the bandwidth by transmitting the lowest

level of an image a user desires. Hassan is silent about the multi-resolution scheme

for video content.

Gonzales teaches the use of such a multi-resolution scheme on video

content. See abstract and column 10, lines 3-15.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Hassan in view of Gonzales by applying the same multi-

resolution techniques for transmission of video data, thereby saving bandwidth and

transmission time during the transmission of video data.

The modified system discloses the transmission of video data between two

image processing device, but fails to disclose that video data can be transmitted to a

subscriber terminal via a digital subscriber line.

Coddington discloses the step of transmitting video data to a subscriber

terminal via a digital subscriber line. See abstract.

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system in view of Coddington, by transmitting the video data to a subscriber terminal via a digital subscriber line. The motivation is to use a transmission mode deployed over existing infrastructure (i.e. telephone lines) that allows for a higher downstream bandwidth.

In regards to claim 3, the system further comprises the step of compressing the video content (See Gonzales, abstract).

In regards to claims, 4 and 13, the system further comprises the step of compressing the video (MPEG-1) using transform based algorithms (DCT). See Gonzales: abstract.

In regards to claims 6 and 15, at least one of the plurality of video quality portions has a quality higher (hierarchical layers with increasing levels of resolution, see Gonzales column 10, lines 8-16) than the low quality video portion downloaded to the subscriber terminal in real time (see Hassan: column 2, lines 5-12).

In regards to claims 7 and 16, the system further comprises the step wherein each of the video quality portions represents a different level of service quality (see Gonzales: column 10, lines 8-16);

In regards to claims 8, 17, 23, 24, the system further comprises the steps of: Determining a download bandwidth available to the subscriber terminal (see Hassan: column 4, lines 60-67, column 5, lines 1-2, column 7, lines 23-37).

Selecting the at least one of plurality of video quality portions having a quality

higher than the low quality video portion based on the download bandwidth (see

Hassan: column 2, lines 5-16).

In regards to claims 9 and 22, Hassan teaches the step of transmitting a first

base image and then provide the additional image details for recomposition at the

subscriber terminal, in order to provide a higher resolution of image. Such a signal

decomposition/recomposition method uses a pyramidal scheme, with incremental

levels of resolution increasing the quality of the image. See Hassan: abstract,

column 1, lines 58-57, column 2, lines 1-35, and column 3, lines 3-9.

In regards to claim 10, the system further comprises the step of recomposing

a plurality of downloaded video quality portions representing the program at the

subscriber terminal for presenting the content to a user (see Hassan: abstract,

column 2, lines 10-12 and see Gonzales: column 10, lines 11-16).

In regards to claim 12, the modified system network includes ADSL (see

Coddington: abstract)

4. Claims 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Hassan et

al. (US Pat. 5,940,117) in view of Gonzales et al. (US Pat. 5,414,469).

In regards to claim 18, Hassan discloses a method of downloading image to a

subscriber terminal using multi-resolution scheme, comprising the steps of:

Decomposing an image into a plurality of image quality portions, a low quality

image portion (base image, containing the coarsest resolution) of the plurality of

image resolutions comprising a complete copy of the image lower than at least one

of the plurality of image quality portions (lowest resolution of the image). See
abstract, column 1, lines 58-67.

Downloading a complete copy of the low quality video portion to the
subscriber terminal (image display unit) for storage locally at the subscriber terminal.
See column 2, lines 1-9.

Receiving from the subscriber terminal a selection request (image data
request) for a higher quality of the corresponding image content (column 2, lines 4-6)
after downloading the complete copy of the low image portion (i.e. base image, see
column 2, lines 1-2) ; and

Downloading at least one of the plurality of video quality portions having a
video quality higher than the low quality video portion to the subscriber in response
to the selection request (see column 2, lines 5-16).

Hassan only discloses the multi-resolution decomposing and recomposing
scheme for image data in order to save the bandwidth by transmitting the lowest
level of an image a user desires. Hassan is silent about the multi-resolution scheme
for video content.

Gonzales teaches the use of such a multi-resolution scheme on video
content. See abstract and column 10, lines 3-15.

It would have been obvious to one of ordinary skill in the art at the time of the
invention to modify Hassan in view of Gonzales by applying the same multi-
resolution techniques for transmission of video data, thereby saving bandwidth and
transmission time during the transmission of video data.

The modified system does not use ADSL as means of transmission to user terminal.

Examiner takes official notice that ADSL was well known at the time of the invention, used to connect subscriber terminals to network such as the Internet.

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system by allowing a subscriber terminal to communicate with the video content provider using a ADSL communication line. The motivation is to use a transmission mode deployed over existing infrastructure (i.e. telephone lines) that allows for a higher downstream bandwidth.

In regards to claim 19, the modified system comprises the step of encoding files for variety of decoder formats. The client system therefore has a decoder for decompressing the compressed (MPEG-1 data, see Gonzales: abstract) content file for playback.

5. Claims 5, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan et al. (US Pat. 5,940,117) in view of Gonzales et al. (US Pat. 5,414,469) and Coddington et al. (US Pat. 5,410,343) as applied to claims 1, and 11 above, and further in view of DeBey (US Pat. 5,701,582).

In regards to claims 5 and 14, the modified system does not comprise the step of downloading the low quality video portion the subscriber terminal during off peak hours.

DeBey discloses the step of pre-caching movie clips during off peak hours in order to reduce bandwidth during peak hours. See column 11, lines 50-64.

It would have been obvious to one of ordinary skill in the art to modify the system to download the base signal during off peak hours, thereby further reducing the bandwidth consumed during the peak hours.

6. Claims 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan et al. (US Pat. 5,940,117) in view of Gonzales et al. (US Pat. 5,414,469) as applied to claim 18 above, and further in view of DeBey (US Pat. 5,701,582).

In regards to claim 20, the modified system does not comprise the step of downloading the low quality video portion the subscriber terminal during off peak hours.

DeBey discloses the step of pre-caching movie clips during off peak hours in order to reduce bandwidth during peak hours. See column 11, lines 50-64.

It would have been obvious to one of ordinary skill in the art to modify the system to download the base signal during off peak hours, thereby further reducing the bandwidth consumed during the peak hours.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
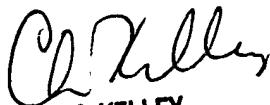
CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

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